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POLICY-BASED NETWORK
Inventor(s): Yasusi Kanada et al.
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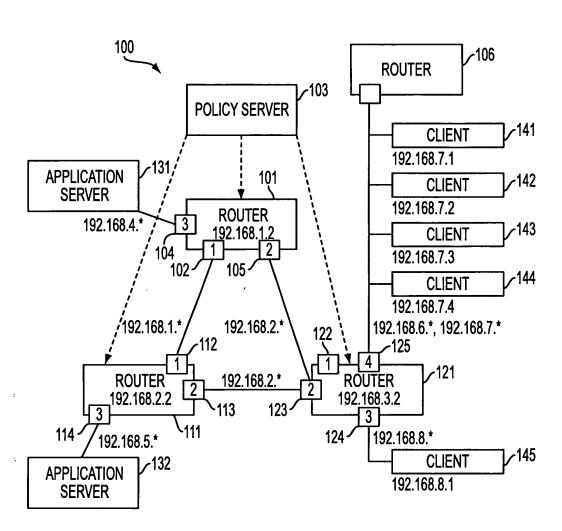


FIG. 1

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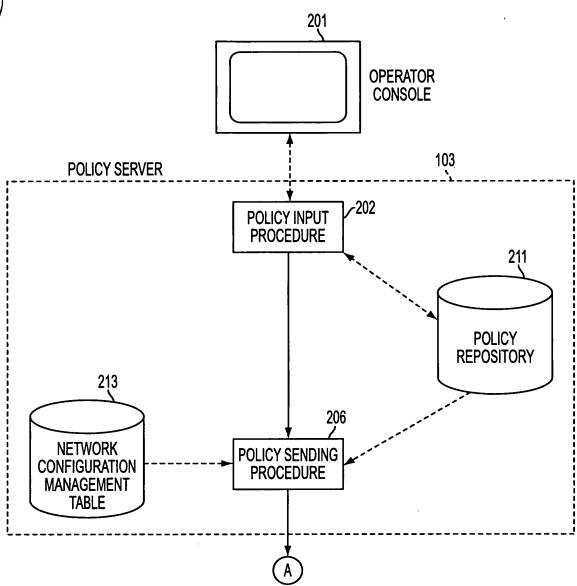


FIG. 2

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```
301
if (Source_IP is 192.168.6* &&
DSCP is 18) {
                                                                -311
if (Source_IP is 192.168.7.1 II
                                                                 312
           Source_IP is 192.168.7.3) {
              if (Information_rate <= 1 Mbps) {
               DSCP=46;
           } else {
              drop;
if (Source_IP is 192.168.7.2 II
Source_IP is 192.168.7.4) {
DSCP = 10;
                                                                -313
if (true) {
                                                                -314
           DSCP = 0;
```

FIG. 3A

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```
351
if (DSCP is 46) {
                                                            - 361
          Scheduling_algorithm = "Priority";
Queue_priority = 6;
if (DSCP is 10) {
                                                            362
          Scheduling_algorithm = "Priority";
          Queue_priority = 5;
if (DSCP is 18) {
                                                           × 363
          Scheduling_algorithm = "Priority";
          Queue_priority = 5;
if (true) {
                                                           - 364
          Scheduling_algorithm = "Priority";
          Queue_priority = 2;
```

FIG. 3B

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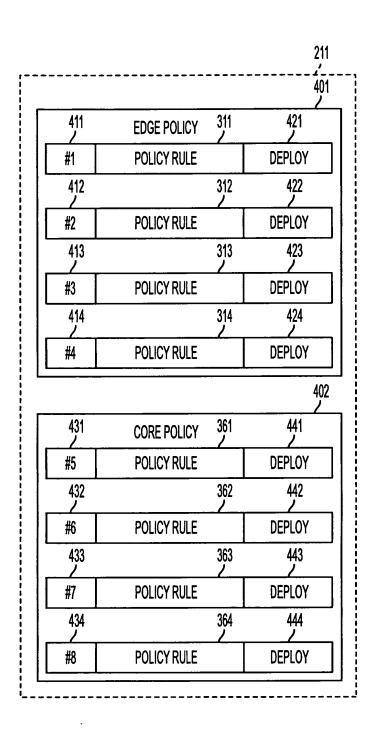


FIG. 4

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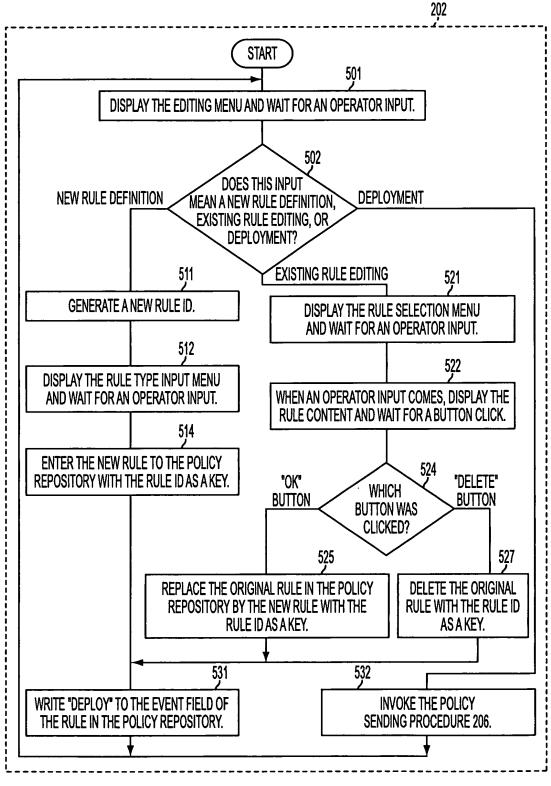


FIG. 5

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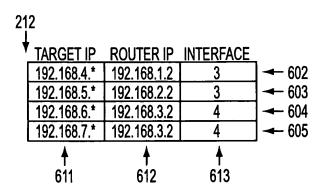


FIG. 6

| 111 | 1 | | | | | |
|----------|----------|-------------|--------------|-----------|----------|---------------|
| † | RULE ID | POLICY TYPE | RULE | INTERFACE | CODEP | _ |
| | #1 | EDGE | → 311 | 4 | 90 | ─ 1011 |
| ſ | #2 | EDGE | → 312 | 4 | 118 | ─ 1012 |
| | #3 | EDGE | → 313 | 4 | 174 | ─ 1013 |
| | #4 | EDGE | → 314 | 1,2,3,4 | 230 | ─ 1014 |
| | #5 | CORE | → 361 | 1,2,3,4 | 332 | ─ 1015 |
| | #6 | CORE | → 362 | 1,2,3,4 | 364 | ─ 1016 |
| | #7 | CORE | → 363 | 1,2,3,4 | 300 | ─ 1017 |
| | #8 | CORE | → 364 | 1,2,3,4 | 428 | ─ 1018 |
| - | A | | | | † | |
| | 1021 | 1022 | 1023 | 1024 | 1025 | |

FIG. 10

| 110 |)1 | | | | |
|-----|---------------|----------------|------------------|-------------------|---------------|
| + | LABEL TYPE | label Value | DEFINING RULE | REFERRING RULE | |
| | DSCP | 18 | #1 | #7 | → 1111 |
| | DSCP | 46 | #2 | #5 | → 1112 |
| | DSCP | 10 | #3 | #6 | → 1113 |
| | DSCP | 0 | #3 | #8 | → 1114 |
| | 4404 | 4400 | 4400 | † | |
| | 1121 | 1122 | 1123 | 1124 | |

FIG. 11

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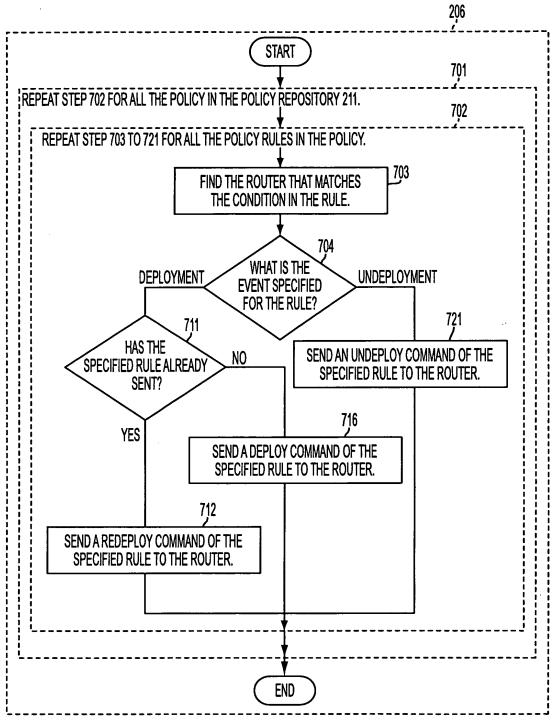
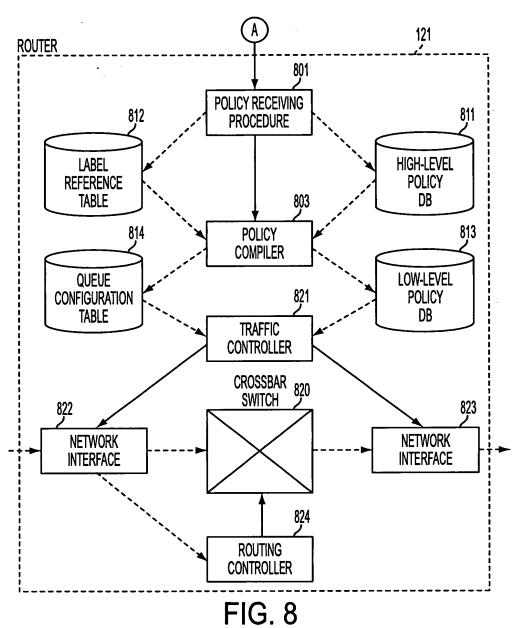


FIG. 7

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822 **NETWORK INTERFACE** 903 902 901 **FLOW FLOW SCHEDULER CLASSIFIER METER**

FIG. 9

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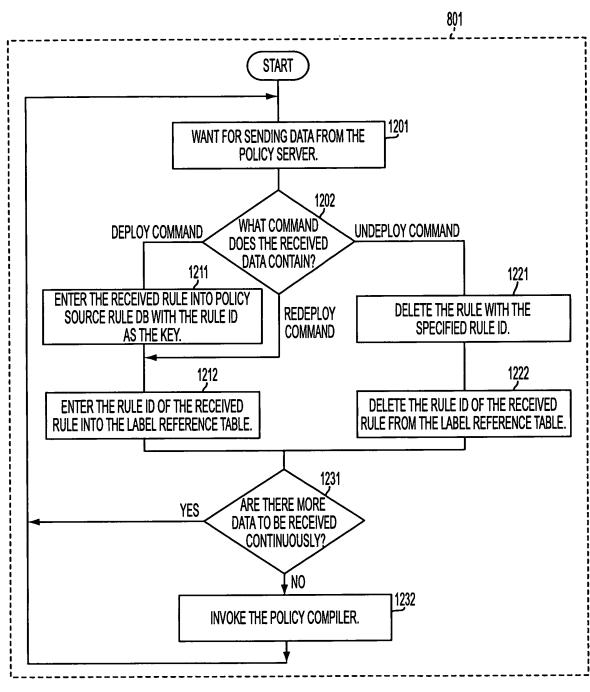


FIG. 12

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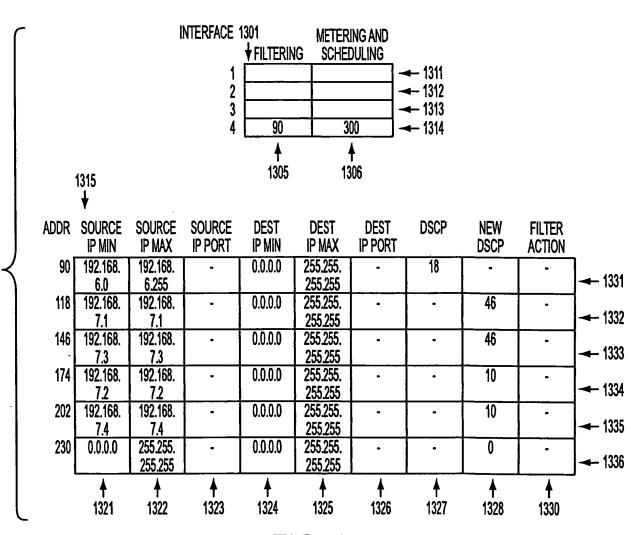


FIG. 13

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| | 1316 → | | | | | | | | | | | |
|------|------------------|---------------------|-------------------|------------------|---------------------|------------------|------------------|------------------|------------------|------------------|---------------|------------------|
| ADDR | SOURCE IP MIN | SOURCE IP MAX | SOURCE IP PORT | DEST IP MIN | DEST IP MAX | DEST IP PORT | DSCP | INFO. RATE | IN Queue | OUT DSCP | OUT QUEUE | OUT DROP |
| 300 | 192.168. 6.0 | 192.168. 6.255 | • | 0.0.0.0 | 255.255. 255.255 | • | 18 | • | 5 | • | - | - |
| 332 | 0.0.0.0 | 255.255. 255.255 | • | 0.0.0.0 | 255.255. 255.255 | • | 46 | 1000 | 6 | • | • | DROP |
| 364 | 192.168. 7.2 | 192.168. 7.2 | • | 0.0.0.0 | 255.255. 255.255 | • | 10 | • | 5 | • | • | • |
| 396 | 192.168. 7.4 | 192.168. 7.4 | • | 0.0.0.0 | 255.255. 255.255 | • | 10 | - | 5 | • | • | • |
| 428 | 0.0.0.0 | 255.255. 255.255 | - | 0.0.0.0 | 255.255. 255.255 | - | • | - | 2 | • | • | • |
| | ∱ 1341 | ↑ 1342 | ↑ 1343 | ↑ 1344 | ↑ 1345 | ↑ 1346 | ↑ 1347 | ↑ 1348 | ↑ 1349 | ↑ 1350 | † 1351 | ↑ 1352 |

FIG. 14

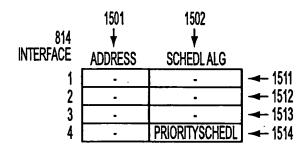


FIG. 15

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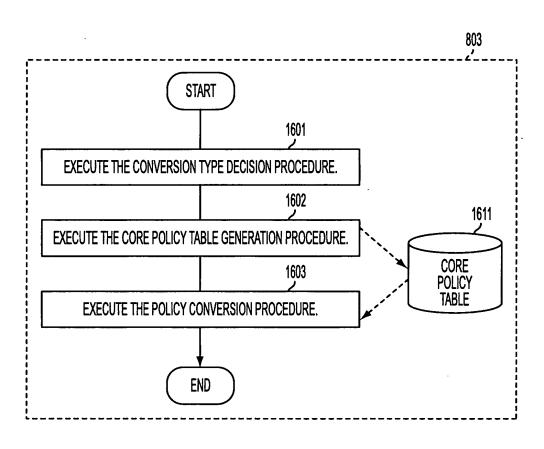


FIG. 16

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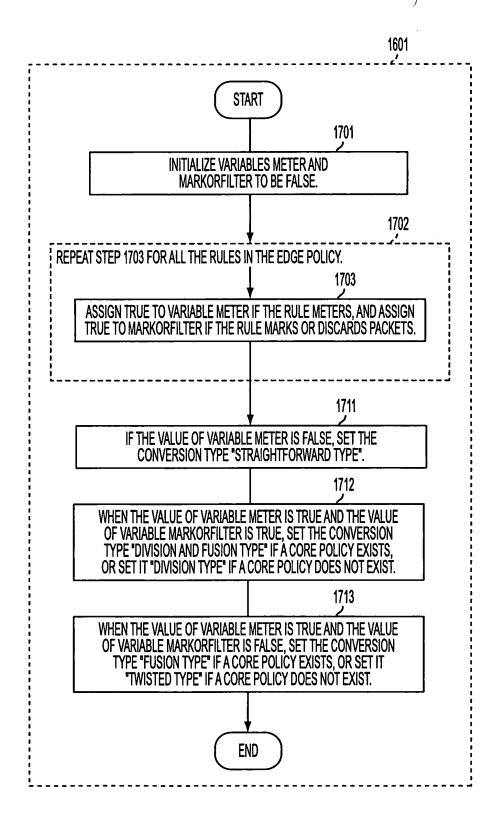


FIG. 17

REPLACEMENT SHEET

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| | | 1611 | |
|------|----|---|------|
| DSCP | 10 | SCHEDULING_ALGORITHM = "PRIORITY"; QUEUE_PRIORITY = 5; | 1801 |
| DSCP | 18 | SCHEDULING_ALGORITHM = "PRIORITY"; QUEUE_PRIORITY = 5; | 1802 |
| DSCP | 46 | SCHEDULING_ALGORITHM = "PRIORITY"; QUEUE_PRIORITY = 6; | 1803 |
| DSCP | - | SCHEDULING_ALGORITHM = "PRIORITY"; QUEUE_PRIORITY = 2; | 1804 |

FIG. 18

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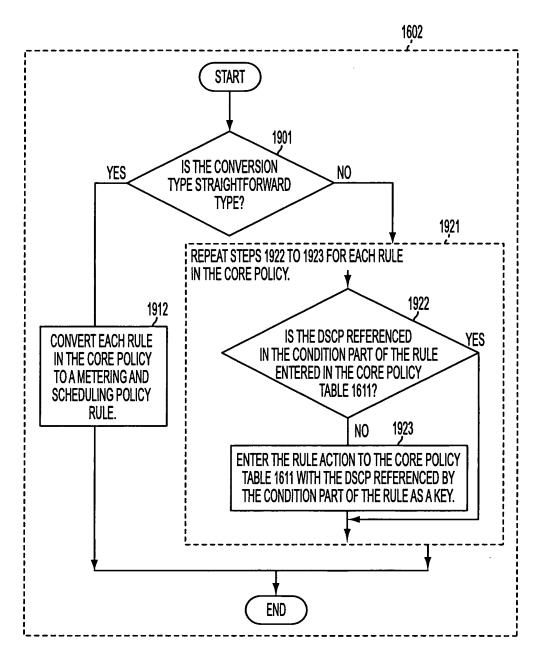


FIG. 19

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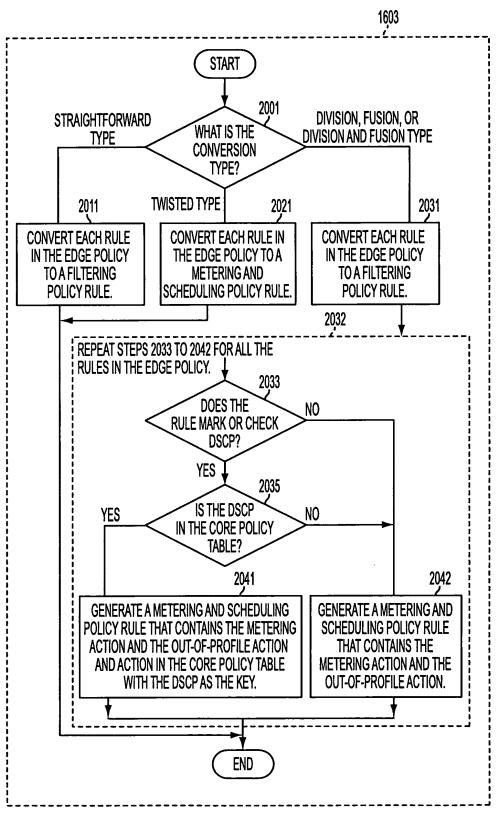


FIG. 20

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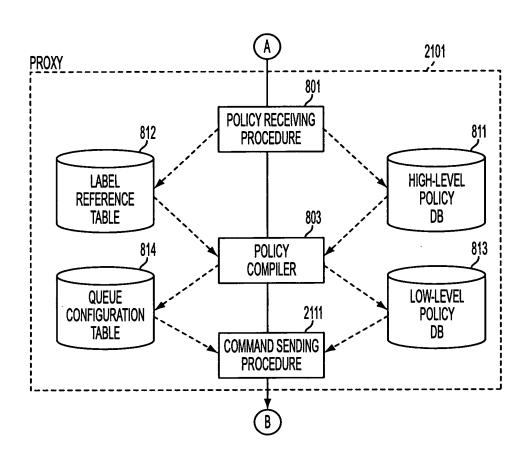
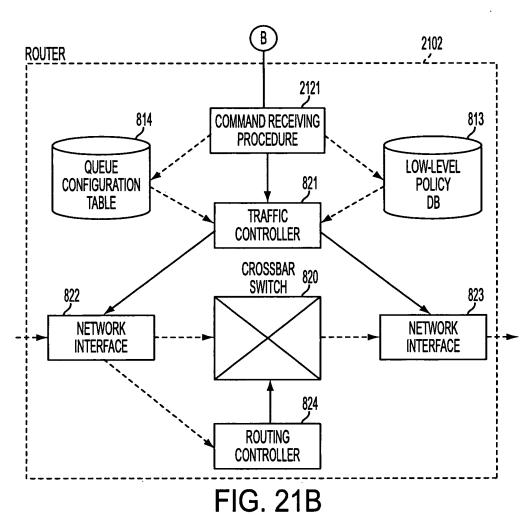


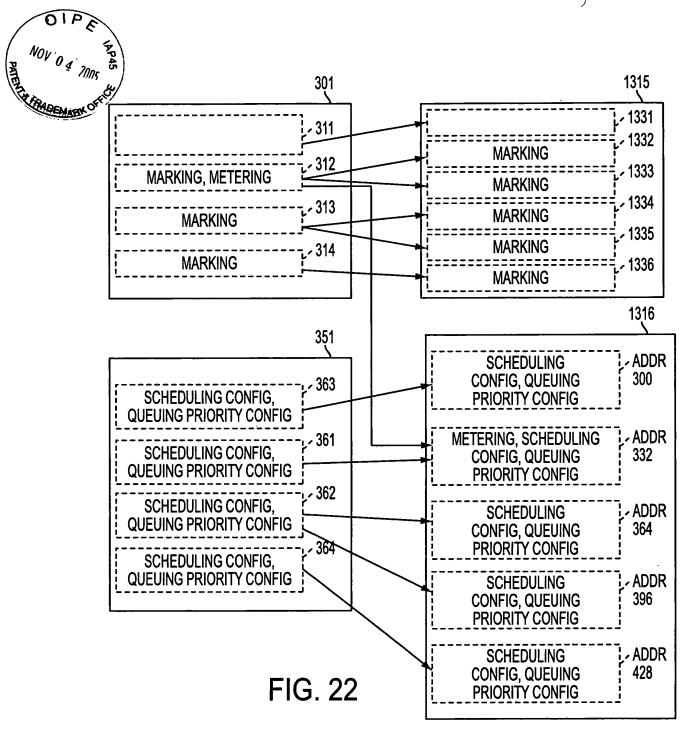
FIG. 21A

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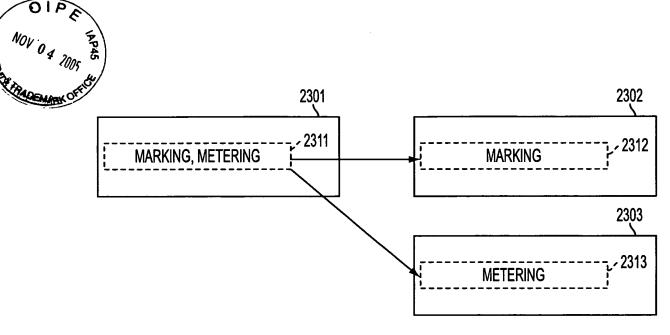


FIG. 23A

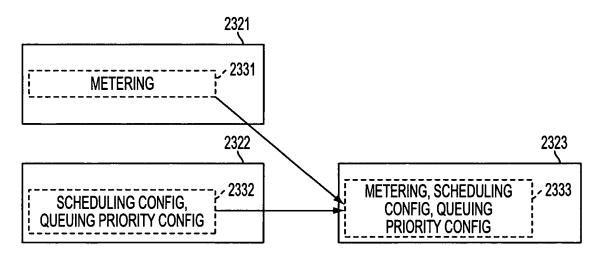


FIG. 23B